Ameren Illinois Advanced Metering Infrastructure (AMI) Annual Update – April 2014

Executive Summary

In accordance with the requirements of Public Acts 97-616 and 97-646, Ameren Illinois Company (Ameren Illinois) has prepared this Advanced Metering Infrastructure (AMI) annual report to outline expenditures and accomplishments achieved through December 2013. Specifically, Section 16-108.6(e) of the Public Utilities Act (Act) requires:

(e) On April 1 of each year beginning in 2013 and after consultation with the Smart Grid Advisory Council, each participating utility shall submit a report regarding the progress it has made toward completing implementation of its AMI Plan. This report shall:

(1) Describe the AMI investments made during the prior 12 months and the AMI investments planned to be made in the following 12 months;

(2) Provide sufficient detail to determine the utility's progress in meeting the metrics and milestones identified by the utility in its AMI Plan; and

(3) Identify any updates to the AMI Plan.

This report also provides a summary of the forecasted expenditures and goals for 2014 (January-December).

In addition, this report will provide an update on Consumer Education and Communications Planning, Ameren Illinois' plan to implement Gas AMI concurrently with Electric AMI, Advanced Metering Infrastructure metric requirements, and an update on AMI tracking mechanisms.

2013 AMI Program Accomplishments

- Completed Business Process Design
- Finalized the foundational IT Architecture, Infrastructure and Installation of AMI systems
- Implemented the AMI Systems test lab
- Began Network Deployment
- Initiated design of the Integrated Operations Center
- Completed Cybersecurity risk assessment and requirements for systems integration
- Designed Customer Communications (outreach initiatives, customer segmentation study, and stakeholder communications)

2014 AMI Program Goals

- Complete Stage One - AMI Head End/Meter Data Management Systems Integration and customer billing
- Begin AMI Meter/Module Deployment in June 2014
- Develop Non-Standard Metering Service (submit tariff)
- Detail design and implement Integrated Operations Center (initial phase)
- Create AMI Analytics reporting
- Implement Web Portal (residential customers)
- Perform Cybersecurity system vulnerability testing and mitigation efforts

- Establish Customer Communications (Execute outreach initiatives for AMI deployment, continue stakeholder communications initiatives)

AMI Program Implementation Strategy

The 4 stages below summarize Ameren Illinois' high-level plan for implementing information technology software applications and equipment, to provide accurate and timely billing, remote connect/disconnect functionality and customer access to usage information. As outlined in subsequent sections of this document, Ameren Illinois' 2013 program achievements and 2014 program goals will support functionality through the end of Stage One of the implementation plan.

Stage 0	Stage 1	Stage 2	Stage 3
Install foundational meter data management system and AMI system	Process and bill customers who receive AMI (Residential and Commercial/Industrial)	Upgrade processes and system to support remote connect/disconnect	Support Peak Time Rebate Program
Prepare systems and processes for installation of 2-way communication network	Integrate AMI and MDM systems and prepare for billing	Revenue Protection Analytics	Event processing such as outage notification and restoration
Manage Asset Information And Deployment Analytics	Customer Web Portal 	Provide Non Billing Interval Data to RES*	
2nd Quarter 2014	**4th Quarter 2014**	**2nd Quarter 2015**	**4th Quarter 2015**

*Pursuant to Requirements identified in the RES Workshops and CPWG

2013 AMI Program Accomplishments

Business Process Design

Business Process Design (BPD) started at the beginning of the year and continued throughout 2013. This effort entailed conducting workshops to achieve an in-depth review of current and future state business processes as a result of the implementation of AMI. The result of these workshops provided the business requirements, detailed work activities, deliverables and timeline to develop technical specifications, perform technical coding, and develop test requirements. In addition, change management assessments were completed and labor resource requirements were developed in concurrence with BPD workshops.

Information Technology

Information Technology achievements in 2013 included the development of the IT architecture, procurement and installation of the IT infrastructure (hardware, software, storage), installation of the AMI Head End System, installation of the Meter Data Management System (MDMS), and building and configuration of these systems. While the 2013 Stage Zero goals were met, additional architecture deployment and integration will occur

through 2015. A testing strategy was also developed for execution in 2014 to include integration, user acceptance, system acceptance, application, and performance testing. These efforts were led by industry leading consultants in Systems Integration and Ameren Illinois subject matter experts.

AMI Systems Test Lab

Ameren Illinois installed and activated the Collinsville, Illinois AMI test lab. The test lab is being utilized for systems testing with the AMI HE and MDMS applications. The test lab contains the hardware necessary to test the network devices required to facilitate end-to-end communications from the meters to the AMI HE and the MDM systems. This hardware includes collectors, routers, and AMI Electric Meters and Gas Modules.

Network Deployment

Ameren Illinois officially began network deployment in Q4 2013 in the Hillsboro service territory. Network deployment involves 'make-ready' activities such as device location surveys, joint use pole agreements, and the provision of electric power. The completion of these 'make-ready' activities provides the framework for installation of the collectors and routers. Ameren Illinois completed a milestone in Q4 2013 by successfully installing the first collector. The collector is communicating with other field network devices and sending data to the AMI Head End production system. Network deployment will precede meter deployment and will be an ongoing effort through 2018.

Integrated Operations Center (IOC) – Design

Ameren Illinois will construct an Integrated Operations center to support meter deployment and oversee AMI and smart grid communication network operations. The implementation includes network monitoring and management to maintain availability of the network, service and knowledge management to identify and resolve issues, asset and configuration management to manage the asset lifecycle and analytics to conduct trend analysis and reporting. The objectives in 2013 were to assess current operations relative to future state needs and to establish IOC governance. Operational assessments included stakeholder input and buy-in, acquisition of key resources, and development of the IOC model to enable end-to-end management of the AMI deployment and network operations.

Completed Cybersecurity Risk Assessment & Requirements

Ameren Information Security completed a cybersecurity risk assessment to determine requirements for the AMI infrastructure and overall cybersecurity plan. Ameren Illinois is utilizing the National Institute of Standards and Technology (NIST) guidelines for the basis of our cybersecurity framework. The requirements of the AMI cybersecurity plan cover all aspects of the AMI, MDMS, and integrated systems, including meter security, data privacy and encryption, network device protection, firewalls, user access controls, security monitoring, and testing.

Peak Time Rebate tariff

On February 1, 2013, Ameren Illinois filed a Peak Time Rebate (PTR) tariff for the purpose of implementing a program to provide credits to residential customers who curtail their electric energy usage during specific periods of peak time in accordance with Section 16-108.6(g) of the Act. Ameren Illinois has completed the business process design required to implement a peak time rebate program. Customers will be allowed to register for PTR in 2015, subsequent to the stage Three functionality release.

AMI Customer Communications

Participated in Industry Events in support of AMI

- In September 2013, Ameren Illinois AMI Communications Team presented both the communications plan and customer segmentation activities at the 2013 Smart Grid Symposium held in Chicago. In addition, Ameren Illinois also had an AMI exhibit at the symposium.
- In September 2013, Ameren Illinois AMI Communications participated in the Smart Grid Consumer Collaborative annual meeting held in Washington, DC.

Developed the Initial Direct Customer Education and Outreach Packets

The customer communications regarding the advanced metering infrastructure deployment plans continue to be aligned with Ameren Illinois' infrastructure improvements. In July 2013, Ameren Illinois completed primary research for the customer segmentation study. The primary research consisted of a field survey involving 1,493 customer participants. The methodology for the research was a hybrid approach of which telephone (landline and cell), and online surveying were used. The final survey results were segmented, tested, and appended with attitudinal and behavioral data. The customer segmentation data is becoming part of Ameren Illinois' communications effort to help target and manage customer education messaging.

Developed co-worker AMI demos

To help educate and engage Ameren Illinois co-workers about changes to the organization resulting from the AMI project regarding business process and customer benefits, the AMI Communications Team developed the following to support this goal. These tools and events will be used throughout the deployment process.

- Ameren Illinois hosted a series of AMI demos for co-workers in Customer Service, Community Outreach, Key Accounts, and Operations including specific demos for the meter shop and polyphase groups to prepare coworkers for the new meter technology and customer benefits.
- Ameren Illinois developed a video to help educate customer service representatives on the benefits of AMI as well as placed various articles using internal communications vehicles.
- The project team conducted and supported training sessions with internal co-workers in IT.

Continued communications with the Illinois Science and Energy Innovation Foundation

Ameren Illinois has been collaborating with the Illinois Science and Energy Innovation Foundation (ISEIF) since its inception in 2012. In 2013, this collaboration continued in several areas, among them customer education. Early in 2013, Ameren Illinois shared our customer communications strategy with ISEIF and offered them input on their final customer education strategy. Later in 2013, Ameren Illinois had a series of discussions with ISEIF and other stakeholders to discuss the format and nature of the education grants that ISEIF would be making to future grantees in preparation of the Request for Information. Ameren Illinois will continue to support this effort and participate in scheduled events to help grantees understand the customer benefits of smart grid and advanced metering technology. The goal is to use ISEIF as the clearinghouse for streamlined communications between Ameren Illinois and the grantees, as well as support coordinated smart grid and AMI messaging and communication throughout Illinois.

Completed the Customer Segmentation Study

Ameren Illinois commissioned the Shelton Group to develop and conduct a quantitative study to segment our Ameren Illinois customers. This study was intended to guide the development of our stakeholder and customer education communication plan. There were four segments defined across the Ameren Illinois service delivery territory: True Believers, Cautious Conservatives, Concerned Parents, and Working-Class Realists. Each

representative segment is a composite using demographics, attitudes, and behavior data that can help Ameren Illinois better target key messages that resonate best with each segment.

Key Findings from the Shelton Group research:

- Customers reacted positively to the AMI program options described:
  - 67% say they are likely to participate in a peak power rebate plan.
  - About half (48%) of customers that have central AC would be interested in participating in a load control program.
  - 42% are likely to participate in a real-time pricing plan. Interest in real-time pricing increases to 50% if an in-home display monitor or thermostat is provided.

- Of the messaging directions tested with customers, information/control and avoiding waste resonated best with the overall customer base.
  - True Believers – Information/Control (31%)
  - Cautious Conservatives – Avoid Waste (35%)
  - Concerned Parents – Information/Control (32%) and Avoid - Waste (30%)
  - Working Class Realists – Information/control (36%)

- When it comes to benefits of the AMI technology, customers considered the availability of new pricing plans and improved reliability the most important.

What Ameren Illinois learned about customer attitudes and behaviors:

- Energy conservation is important to Ameren Illinois customers; 81% consider it important, significantly higher than the national average.
- Compared to Americans overall, Ameren Illinois customers are more engaged in energy conservation behaviors. On average, customers have completed 5.5 of such improvements in their home – more than Americans overall (2.8).
- When it comes to energy-efficient products, saving money is the strongest motivator/driver.
- Ameren Illinois' customer segmentation generally mirrors the U.S. population, with 22% Cautious Conservatives, 31% Concerned Parents, 20% True Believers and 26% Working Class Realists.

2013 AMI Program Electric Capital Expenditures

2013 Expenditures	Capital
AMI Communications Network	$1.0M
Hardware	$2.1M
Software	$3.2M
Systems Integration (Development, etc.)	$9.2M
Program Management	$1.5M
Deployment (Network deployment, Meter deployment preparation)	$0.3M
Integrated Operations Center	$0.8M
TOTAL	**$18.1M**

2014 Program Goals

AMI Head End (HE) & Meter Data Management Systems (MDMS) Integration

The completion of Stage Zero activities are foundational components to Stage One initiatives. Stage One involves interfacing data from the Meter Data Management system to the existing customer service system (CSS) to facilitate the billing of customers based on the meter data reads provided by the advanced meters. Customer billing will include monthly register billed customers and interval billed customers (including real time pricing program).

Additionally, the technical team will continue the deployment of the AMI 2-way communications network and integration activities. This involves end-to-end testing of the system from the AMI meter (including AMI Head End and MDMS) to the Meter Management System (MMS) and CSS.

In 2014, the IT architectural solution will be developed for Stages Two and Three of the project. Stages Two and Three of the project will be implemented in 2015 and include remote connect/disconnect, peak time rebate and outage capabilities. The architectural solution will determine the infrastructure, performance requirements and applications needed to support the technical implementation of these stages.

Begin AMI Meter/Module Deployment

AMI deployment will commence in Hillsboro - Q2 2014, with the majority of the 2014 meter installations being completed in Q3 and Q4 2014. The project team has completed development of the revised deployment processes that will support the activities associated with supply chain, warehousing, meter / module installation, route planning, and the provisioning and commissioning of AMI meters. All installation and safety training will be completed prior to setting the first meter in Hillsboro.

Non-Standard Metering Service

Ameren Illinois has developed the internal procedures to address non-standard metering service. Ameren Illinois will file the non-standard metering service tariff with the ICC in Q2 2014. Upon approval of this tariff, Ameren Illinois will execute the training, documentation, and communications required to educate our internal and external stakeholders on the processes needed to include non-standard metering in business operations and customer communications. Until the tariff is approved and implemented, Ameren Illinois has developed interim processes to facilitate customer request and inquiries for non-standard metering.

Integrated Operations Center (IOC) – Implementation

Ameren Illinois will complete the business process design, change management, and organizational alignment activities to prepare for the initial release of the IOC. Ameren Illinois will also configure, test, and deploy an architectural solution to develop interfaces between the network communications monitoring system, issues tracking system and AMI Head End (command center) systems. As the IOC matures, additional process improvements, capabilities, and enhanced analytics reporting will be implemented to further increase the intelligence and efficiency of operations. The first phase of the IOC will be implemented in Q4 2014.

AMI Analytics

Deployment metrics and reports will be developed. These reports and metrics will be utilized in support of operations and to provide updates to the ICC on the additional AMI tracking mechanisms.

Web Portal Implementation

Ameren Illinois has contracted with Aclara Technologies LLC to develop a web portal interface which will provide customers with the following functionality:

- Usage data (hourly data when available)
- Bill alerts
- Bill history and comparisons
- Green button Functionality
- Home Energy Advisor (includes customer driven profile assessment, energy efficiency tips and valuation of potential savings)

Positioning for the Future: Interfacing with Consumer Devices

Ameren Illinois' will deploy AMI meters that meet the Zigbee Smart Energy Profile 2.0, which was ratified as a standard in 2013. This will lay the foundation for future meter to HAN and other consumer device communication. However, Ameren Illinois does not plan to utilize this path to communicate with customers initially. As explained above, in the 4th quarter of 2014 Ameren Illinois will implement a residential web portal for customers to access their data. This will allow customers with web access to observe their usage without purchasing or installing additional equipment to receive signals from Ameren Illinois meters.

In addition, Ameren Illinois' Technical Applications Center (TAC) will function as the testing facility that will verify the ability of consumer devices to communicate through the ZigBee Smart Energy Profile 2.0 to the AMI meter. In 2014, TAC personnel will work with Ameren Illinois' AMI vendor Landis+Gyr to develop the testing procedures and necessary infrastructure to begin testing consumer devices to certify which available devices can be securely registered and are capable of receiving information from its AMI meters.

Ameren Illinois will continue to monitor HAN and other consumer device technology as it continues to mature and to improve, and discuss with stakeholders the most appropriate approaches for enhancing its customers' interface choices. Ameren Illinois will also monitor and consider third party vendors to administer customer interface programs and support just as it has done with its Power Smart Pricing program and plans to do with Peak Time Rebate.

Perform Cybersecurity Testing

Ameren Information Security will routinely perform internal and third-party vulnerability testing as a risk mitigation strategy to test security controls and configuration. In 2014, Ameren Information Security will conduct these tests prior to production deployment in addition to ongoing continuous monitoring as part of meter deployment and daily operations.

Customer Communications

Customer Segmentation Study and Communications

Ameren Illinois continues to have a two-pronged approach to its communications effort: Internal and External Communications. In 2014, the direct customer communications packet was developed to support the current progressive communications strategy. Ameren will continue to develop customer communications that support the gradual introduction of meter functionality. In February 2014, the initial outreach began to municipal leaders whose communities are served out of the Ameren Illinois' Hillsboro Operating Center and will continue to move throughout the service territory based on the deployment route.

Internal Communications:
The goal is keep co-workers informed, prepared and engaged in the AMI Project. Through the various communications tool, the AMI Communications Team will have an ongoing role in getting the right information to the right co-workers at the right time.

- Co-worker FAQs - A document that outlines questions and associated answers stakeholders might ask once they become aware of the AMI program. This will be a living document that will change over time as new features, programs and options are introduced.
- Support the Organization Impact team by continuing to provide information to enhance co-worker education.
- Developing Scripts for Customer Service to help representatives use the customer segmentation intelligence more wisely to discuss customer concerns. Also, continued support of the AMI customer inquiry escalation process.
- Ongoing development of a co-worker newsletter that will permit co-workers who work for the deployment division, those that support the division and co-workers who live in the division with updates and milestones regarding the meter deployment.
- Developing an internal SharePoint site for co-workers to gain more insight to the project.
- Continue to utilize a "Leadership Letter" to share AMI updates, key topics, opportunities, and challenges.
- Continue to support the Business Process Design/Organizational Impact strategy with communication tools and collateral as needed. This will include the up and running Change Champion Network which meets on a monthly basis, Change Champion program as well as communications and training support.

External Communications:

While Ameren Illinois is still ramping up for actual customer communications, the goal is to leverage the mediums and communication strategies listed in a subsequent section of this document entitled Customer Communications Vehicles/ Materials.

Community outreach has begun with municipal leaders such as the mayors and city managers of seven of the largest communities serviced out of the Hillsboro Operating Center and Mt. Clare office. The areas include: Hillsboro, Litchfield, Greenville, Staunton, Gillespie, Carlinville, and Vandalia.

- Community Outreach/Customer Education Support: In January 2014, Ameren Illinois communications team attended an in-person session with all of the nine grantees of the ISEIF grants. The organizations will assist with broader third party customer education to communicate the benefits of the advanced metering infrastructure deployment project. In February 2014, Ameren Illinois participated in a webinar in conjunction with ComEd coordinated for the grantees of the ISEIF grant.
- Leverage News Media: Utilize traditional and established communications mix, news releases, and news media advisories that will allow Ameren Illinois to communicate benefits, associated milestones, and status/progress of deployment. This may include social media tools such as Twitter communities.
- Customer Communication:
    - Ameren Illinois developed the direct customer communication items: 60-day letter, 30-day post card and the door hanger. The 60-day letter uses the customer segmentation by service delivery type.

        - Bill Inserts-Scripts for Customer Service and FAQs to support the Energy Advisor service model- Information placed on bills to raise awareness on benefits and impacts and pointing customers to more information (website, newsletter, phone number, etc.)
        - The “Facts on Energy” newsletter will be used to provide regular updates on the project, its benefits, impacts, and customer testimonials, etc. The newsletter offers an opportunity to share what customers can expect during deployment as well specific scenarios of how they will benefit from AMI.
        - Advertising initiatives for the overall message of AMI will be inclusive of overall infrastructure improvements. Since the rollout is very gradual and in smaller media markets, the advertising strategy will be more localized and grassroots in nature. Potential advertisement mediums could include:
            - Electronic-radio, television, digital including social media paid channels
            - Non-Electronic- print, billboards
- Minor Corporate Website Enhancements have been made and will be updated as the stages of meter functionality are introduced over time. Ameren will be overhauling the current content management system. As the site is updated with additional capabilities, the communications team will enhance the AMI section of the site accordingly. The goal is to maintain the current AMI web pages and create additional web pages to supply specific information for customers around the benefits of AMI as well as the details of the project. These pages could also provide links to other information such as FAQ’s, demonstration videos, external research, customer testimonials, and possibly an interactive map showing deployment timeframes. Once PTR rates and the customer portal are available, information regarding those will also be available.
- Ameren Illinois will continue community outreach initiatives by researching community events that will be most appropriate to engage customers in conversations about our overall infrastructure improvements inclusive of AMI and its benefits.

In addition, Ameren Illinois will continue discussions with ISIEF and other stakeholders on ways to integrate and align ISIEF’s customer education strategies with the communication efforts of Ameren Illinois.

The Consumer Education and Communication Plan will continue to be leveraged as it takes customers through four distinct phases: 1) AMI Education, 2) Current and future benefits, 3) Acceptance and 4) Engagement in smart energy pricing programs.

Ameren Illinois will build off these core communication elements in the deployment of AMI. These elements include, but may not be limited to:

- Contact with local mayors, emergency responders, community leaders, stakeholders and organizations.
- Advanced notice to customers announcing the timeline of the installation and highlighting current and future benefits.
- Localized news release and media briefing.
- Courtesy contact prior to installation and door hangers left after installation.

Ameren Illinois will continue to refine the original customer and co-worker FAQs to support the overall project. The AMI Communications Team and the Ameren Illinois Community Relations Coordinators will work together to conduct one-on-one meetings with local officials, municipality leaders, local organizations to communicate the overall infrastructure improvements happening in their communities including the advanced meters. Also, Ameren Illinois will participate in local events that complement the deployment plans. Actual events need to be determined and coordinated with deployment and community groups.
The communications activities below continue to be part of the communications mix:

Customer Communications Vehicles/Collateral	Description
Frequently Asked Questions (FAQ)	A document that outlines questions and associated answers stakeholders might ask once they become aware of the AMI program. This will be a living document that will improve over time as more is learned.
Scripting for Customer Service Representatives (CSRs)	CSR and Field teams will be equipped with scripts and message points to make customers aware and to provide details of the deployment and programs for inquiring customers. This vehicle could also be used as a prompting to ask customers if they are aware of the project should they call around the time of their installation (if information is available).
Leveraging earned media news releases and news media advisories	Through the traditional and established communications mix, news releases and news media advisories will allow Ameren Illinois to communicate benefits, associated milestones, and status/progress of deployment.
Bill Messaging/Inserts	Information placed on bills to raise awareness on benefits and impacts and pointing customers to more information (website, newsletter, phone number, etc.).
Customer Newsletter (Facts On Energy)	The newsletter will be used to provide regular updates on the project, its benefits, impacts and to share customer testimonials, etc. The newsletter offers an opportunity to share what customers can expect during deployment as well specific scenarios of how they will benefit from AMI.
Advertising (print, radio, TV, digital, billboards, etc.)	Targeted advertising in areas may be considered to raise awareness of the deployment and to reach large customer segments.
Dedicated web pages that include fact sheets, contact information, programs, FAQs	Web pages will be created and managed to supply specific information for customers around the benefits of AMI as well as the details of the project. These pages could also provide links to other information such as FAQ's, demonstration videos, external research, customer testimonials, and possibly an interactive map showing deployment timeframes. Information regarding the customer portal and PTR rates will be made available as soon as they are accessible.
Videos demonstrating: installation process	Videos may be created to show customers what they can expect during installation as well as understand how the system works for greater awareness and education.

2014 Forecasted Electric Capital Expenditures

2014 Forecasted Expenditures	Capital
AMI Meters	$6.3M
AMI Communications Network	$4.3
Software	$0.5M
Systems Integration	$16.2M
Program Management	$1.5M
Integrated Operations Center	$4.7M
Deployment	$1.1M
TOTAL	**$34.5M**

Gas AMI Plan

In July 2013, the Illinois Commerce Commission (ICC) approved Ameren Illinois' qualifying infrastructure plant (QIP) surcharge for gas utilities. As a result, gas AMI will be deployed concurrently with electric AMI to 56% of gas customers by the end of 2019.

EIMA Metrics

The Illinois Commerce Commission approved Ameren Illinois' revised MAP-M metric plan filing on January 9, 2013. The approved MAP-M metric plan includes a January 1, 2014 start date for the three AMI related metrics. While the 2013 results are not required to be reported, below is the 2013 year-end information for the three AMI related EIMA metrics:

1. Estimated bills: 511,720
2. Consumption on inactive meters: 11,079,864 kwh
3. Uncollectibles: $10,403,947

Baseline calculations, yearly incremental metric goals, and reporting schedule were explained in detail in Ameren Illinois' MAP-M metric plan.

AMI Tracking Mechanisms

In its approved AMI Plan, Ameren Illinois proposed to track the following information. All information is as of December 31, 2013.

1. Percent of support system installed

   15 % of the AMI support systems were installed.

2. Percent of 2-way network installed

0.05% of the two way network was installed.

3. Number and percent of AMI meters installed

   No AMI meters have been installed. Installation of the first AMI meter is planned for June of 2014.

4. Number of customers able to access the Web Portal and Web Portal usage statistics

   The Web-Portal functionality will be added in the 4th quarter of 2014.

5. Number of customers eligible for peak time rebate tariff

   Peak Time Rebate functionality will be added in the 4th quarter of 2015.

6. Number of customers signed up for peak time rebate tariff

   Peak Time Rebate functionality will be added in the 4th quarter of 2015.

7. Number of customers on PSP, RTP, or other real time rates

   Number of customers on Ameren Illinois' Power Smart Pricing (PSP) Program = 13,581.
   Number of customers on an Ameren Illinois' Real Time Pricing (RTP) Program (excluding PSP) = 1,527

In addition to the above tracking mechanisms, Ameren Illinois has voluntarily agreed to track additional items. As stated, the work and activities described below are a voluntary undertaking on the part of Ameren Illinois. Recognizing changing circumstances that may affect the propriety of tracking the subject information, or where provisions of the enabling statutes are no longer operative, Ameren Illinois reserves the right to modify, delete, or add to any of the provisions described below, and the right to terminate any or all of the undertakings.

All data is as of December 31, 2013 unless otherwise stated.

1. The number of residential and small commercial customers taking service from Ameren Illinois sponsored time variant or dynamic pricing tariffs, segmented by residential and small commercial customers, and by the specific dynamic or time variant rate. A residential customer is defined as a customer taking service under DS1. A small commercial customer is defined as a DS2 customer with usage of 15,000 kWh or less annually for the prior calendar year.

Type of Tariff	**# of Accounts**
Residential – Power Smart Pricing	13,581
Residential – Ameren RTP1	90
Small Commercial - RTP	372
Total Residential and Small Commercial RTP Accts	**14,043**
Other Non-residential RTP	1,065
Total Hourly Price Accts	**15,108**

2. The estimated peak demand reduction in MW resulting from customer participation in Ameren Illinois' Peak Time Rebate Program. Estimated peak demand reduction is defined as the average estimated load reduction during the previous calendar year's Peak Time Rebate curtailment events.

The estimated peak demand reduction in MW resulting from customer participation in Ameren Illinois' Peak Time Rebate Program is not expected to be available until the 2017 annual report, because Ameren Illinois' Peak Time Rebate Program is not expected to begin until 2016.

3. The following by customer class (DS1, DS2-Small Commercial, DS2-All Other, DS3, DS4):
    a. Number of AMI meters installed
    b. Number of AMI meters communicating through the AMI network and network accessed data used for billing.
    c. Number of customers with AMI meters whose data is available on the applicable web-based portal.
    d. Number of customers with AMI meters who have viewed their data on the applicable web-based portal a minimum of one time during the calendar year.

    Data for AMI meters is not expected to be available until the 2015 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

4. The number of AMI metered customers with a consumer device registered to receive information from the AMI meter. Ameren Illinois will also provide a list, by device type, of the consumer devices that have been certified as capable of receiving information from its AMI meters.

    Data for AMI meters is not expected to be available until the 2016 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

5. As applicable, the number of AMI metered customers who download data through the Green Button Initiative format a minimum of one time during the calendar year.

    Data for AMI meters is not expected to be available until the 2016 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014, and Green Button enablement begins in in the 4th quarter of 2014.

6. The number of AMI meters that are replaced prior to the end of their manufacturer expected 20-year useful life. The high level cause of the meter replacement will also be tracked in one of four categories – 1. communication related, 2. metrology related, 3. remote switch related, 4. external physical damage not caused by the meter. Ameren Illinois will also note those internal meter malfunctions (categories 1 – 3 above) that cause a non-momentary disruption of service to the customer.

    Data for AMI meters is not expected to be available until the 2016 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

7. Ameren Illinois will add the most current Part 466.140 Distributed Generation Annual Report as an attachment to its annual AMI Plan Update.

    See Appendix 1.

8. Ameren Illinois will segment from the most current Part 466.140 Distributed Generation Annual Report those customers taking service on the Net Metering Tariff and add this document as an attachment to its annual AMI Plan Update.

    See Appendix 2.

9. The total known distributed generation capacity in KW connected to the Ameren Illinois distribution system based on the Part 466.140 Distributed Generation Report and divide that capacity value by the total Ameren Illinois system peak demand.

The total known distributed generation capacity in KW connected to the Ameren Illinois distribution system is 12,861.1 KW, or 0.65% of Ameren Illinois' peak demand during 2013 of 1,966.43 MW.

10. The time required to connect distributed resources to the grid. The clock will start upon receipt of a complete application from the customer. An application is considered complete when all required documentation, information, application fees, etc. have been received and application can be forwarded to engineering. The clock will end when an appropriate Ameren Illinois electric meter is installed and / or appropriately programmed to accommodate the distributed resource.

    See Appendix 3.

11. The number of formal ICC complaints, informal ICC complaints and other complaints related to AMI deployment, broken down by type of complaint and resolution.

    Data for AMI meters is not expected to be available until the 2015 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

12. The reduction in gasoline consumption from the reduction in manual meter reading miles, and converted to a reduction in greenhouse gas emissions based on formulas provided by CUB / ELPC / EDF.

    The reduction in gasoline consumption due to AMI meters is not expected to be available until the 2015 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

13. The annual combined load factor for all its AMI metered customers, and its entire system annual load factor. Annual load factor is defined as total consumption in MWH divided by the hourly peak demand at the time of system peak in MW multiplied by 8760 hours per year.

    Data for AMI metered customers is not expected to be available until the 2016 annual report, because Ameren Illinois' installation of AMI meters only begins in the 2nd quarter of 2014.

14. The number and percentage of 12 kV distribution circuits using data from AMI meters as part of a voltage / var control scheme.

    There are no 12 kV distribution circuits using data from AMI meters as part of a voltage/var control scheme.

During 2013, Ameren Illinois has voluntarily participated in numerous discussions and workshops with CUB, ELPC, EDF, and other stakeholders on developing potential additional tracking mechanisms related to greenhouse gas emissions and line losses. These discussions have been beneficial, and Ameren Illinois will continue discussions on these two topics. In addition, Ameren Illinois will voluntarily continue discussions with CUB, ELPC, EDF, and other stakeholders, as appropriate and as practical, on the following items:

1. On-peak load reductions resulting from Ameren Illinois administered programs in addition to PTR.
2. Potential methods by which to estimate the energy provided by distributed generation connected to the Ameren Illinois system.
3. Methods by which to further calculate annual load factor of AMI metered customers by customer class.
4. Potential methods by which to define and track network nodes monitored in "real time".
5. Potential methods by which to determine the number of third party owned energy storage devices connected to the Ameren Illinois electric grid.
6. Ameren Illinois will continue discussions with alternative retail electric suppliers' options for identifying and tracking those retail electric supplier served customers taking service under a time variant or dynamic pricing rate.

Appendix 1- Part 466.140 Distributed Generation Annual Report

2014
Annual Report of
Ameren Illinois Company d/b/a Ameren Illinois
Pursuant to Part 466.140
of the 83 Illinois Administrative Code
<=10 MVA Distributed Generation Annual Report
Requests for Distributed Generation Interconnection

	2011-2012 Data (as of 2-10-12)		2012-2013 Data (as of 2-10-13)		2013-2014 Data (as of 2-10-14)		**Totals as of 2-10-14**	
	Completed	Under Review	Completed	Under Review	Completed	Under Review	Requests Received*	
1) Requests Received	74	23	104	21	36	11	494	
Level 1	63	17	76	15	25	9	406	
Level 2	11	4	27	6	11	1	82	
Level 3	0	0	0	0	0	0	1	
Level 4	0	2	1	0	0	1	5	
							Requests Approved*	
	Customers	kW	Customers	kW	Customers	kW	Customers	kW
2) Requests Approved	99	1047.6	94	8098.4	46	423.9	400	12861.1
Level 1:	85	581.6	68	373.0	35	155.7	331	1671.9
Solar	50	298.2	59	310.2	28	135.0	244	1140.2
Wind	6	39.8	5	36.8	7	20.7	49	244.2
Both	29	243.6	4	26.0	0	0.0	38	287.5
Level 2:	14	466.0	25	2925.4	11	268.2	68	6389.2
Solar	7	141.8	19	914.9	11	268.2	46	1595.2
Wind	4	210.0	5	1972.3	0	0.0	17	4629.3
Both	3	114.2	1	38.2	0	0.0	5	164.7
Level 3:	0	0.0	0	0.0	0	0.0	0	0.0
Level 4:	0	0.0	1	4800.0	0	0.0	1	4800.0
							Requests Denied*	
	Customers	kW	Customers	kW	Customers	kW	Customers	kW
3) Requests Denied	0	0.0	0	0.0			0	0.0

Note:
Level 1 = Distributed generation facilities less than or equal to 10kVA
Level 2 = Lab certified interconnection equipment.with nameplate capacity less than or equal to 2MVA.
Level 3 = Distributed generation facility does not export power. Nameplate capacity is less than or equal to 50kVA if connected to area network or less than or equal to 10 MVA if connected to a radial distribution feeder.
Level 4 = Nameplate capacity rating is less than or equal to 10 MVA and the distribution generating facility does not qualify for a Level 1, 2 or 3 review, or the distribution generating facility has been reviewed but not approved under a Level 1, 2 or 3 review.
* - Total column reflects totals from the inception - April 1, 2008 to current.

Appendix 2- Part 466.140 Distributed Generation Annual Report – Net Metering Only

2014
Annual Report of
Ameren Illinois Company d/b/a Ameren Illinois
Pursuant to Part 466.140
of the 83 Illinois Administrative Code
<=10 MVA Distributed Generation Annual Report
Requests for Distributed Generation Interconnection (Net Metering Customers Only)

	2012-2013 Data (as of 2-10-13)		2013-2014 Data (as of 2-10-14)		**Totals as of 2-10-14**
	Completed	Under Review	Completed	Under Review	Requests Received*
1) Requests Received	97	21	25	10	153
Level 1	73	15	20	9	117
Level 2	24	6	5	1	36
Level 3	0	0	0	0	0
Level 4	0	0	0	0	0

					Requests Approved*	
	Customers	kW	Customers	kW	Customers	kW
2) Requests Approved	85	749.7	35	270.0	120	1019.7
Level 1:	66	366.8	30	146.1	96	512.9
Solar	58	309.0	25	130.2	83	439.2
Wind	5	36.8	5	15.9	10	52.7
Both	3	21.0	0	0.0	3	21.0
Level 2:	19	383.0	5	123.9	24	506.9
Solar	15	272.5	5	123.9	20	396.4
Wind	3	72.3	0	0.0	3	72.3
Both	1	38.2	0	0.0	1	38.2
Level 3:	0	0.0	0	0.0	0	0.0
Level 4:	0	0.0	0	0.0	0	0.0

					Requests Denied*	
	Customers	kW	Customers	kW	Customers	kW
3) Requests Denied	0	0.0			0	0.0

Note:
Level 1 = Distributed generation facilities less than or equal to 10kVA
Level 2 = Lab certified interconnection equipment.with nameplate capacity less than or equal to 2MVA.
Level 3 = Distributed generation facility does not export power. Nameplate capacity is less than or equal to 50kVA if connected to area network or less than or equal to 10 MVA if connected to a radial distribution feeder.
Level 4 = Nameplate capacity rating is less than or equal to 10 MVA and the distribution generating facility does not qualify for a Level 1, 2 or 3 review, or the distribution generating facility has been reviewed but not approved under a Level 1, 2 or 3 review.
* - Total column reflects totals from the inception - Feb 10, 2012 to current.

Appendix 3 - Time Required for Connection of Distributed Resources

2014
Annual Report of
Ameren Illinois Company d/b/a Ameren Illinois
Pursuant to Part 466.140
of the 83 Illinois Administrative Code
<=10 MVA Distributed Generation Annual Report
Requests for Distributed Generation Interconnection (Net Metering Customers Only)***

Customer #	Duration: Time from a Completed Application Until Energy Flows from Project to Grid (Live Date) in Actual Days
1	206
2	35
3	32
4	163
5	524
6	44
7	43
8	13
9	33
10	96
11	29
12	145
13	46
14	10
15	62
16	14
17	175
18	8
19	23
20	29
21	16
22	20
23	26
24	26
25	35
26	13
27	21
28	42
29	59
30	17

Assumptions:

1. The clock will start upon receipt of a complete application from customer. An application is considered complete when all required documentation, information, application fees, etc. has been received and application can be forwarded to engineering. (instructions - use Column Q in spreadsheet)
2. The clock will end based on the date when the bi-directional (dual channel) meter is installed or re-programmed. The customer is not authorized to operate the system until the application has been reviewed and approved by Engineering, an inspection and site-test completed and a bi-directional (dual channel) meter installed. (Instructions - use column AC in spreadsheet)
3. Ameren Illinois Policy is to install a bi-directional (dual channel) meter for every distributed generation installation.
4. It should be noted some systems will NOT have energy flow into the grid. These systems were designed for load sharing to reduce billable energy consumption (e.g. some smaller systems were installed in school science labs for educational purposes only.)
5. Time is represented in actual days, not business days.

*** - This represents the total # of net metering customers that completed their installations from Feb 10, 2013 to Feb 10, 2014.